



ELECTRONIC COURTROOM EVIDENCE PRESENTATION SYSTEM

Evidence Presentation System



Evidence Presentation System

The evidence presentation system is a collection of audiovisual equipment primarily contained in the visual presentation (VP) cart. Its use is intended to simplify the presentation of evidence in courtroom proceedings. Audio/Visual presentations dramatically increase retention of information.

The cart houses the document camera (ELMO), the VCR, the color printer, and the annotation pad. The cart also has connections to plug in a PC or auxiliary video device. There are additional devices for adjusting mix and video display which are not used under normal circumstances.

Control buttons for all the equipment in the cart are combined in a control box. There are control boxes located at the judge's bench, at the lower bench for the courtroom deputy, and at the VP cart. The equipment will be operated by the attorneys during the trial.

The main power switch for the cart is a large red button located on the left about halfway up the cart. The cart should remain on for the duration of the trial. The components may be placed in standby mode when not in use.

Main Components



There are two main components to the Evidence Presentation System: the equipment in the cart, and the realtime transcript processing software.

The cart contains the following equipment:

CONTROL BOX

The control box selects and controls all of the equipment on the cart.

VIDEO SOURCES

There are several video sources on the cart: the ELMO documentation camera, a VCR player, and connections for a laptop computer, or an auxiliary video connection like a video camera or DVD.

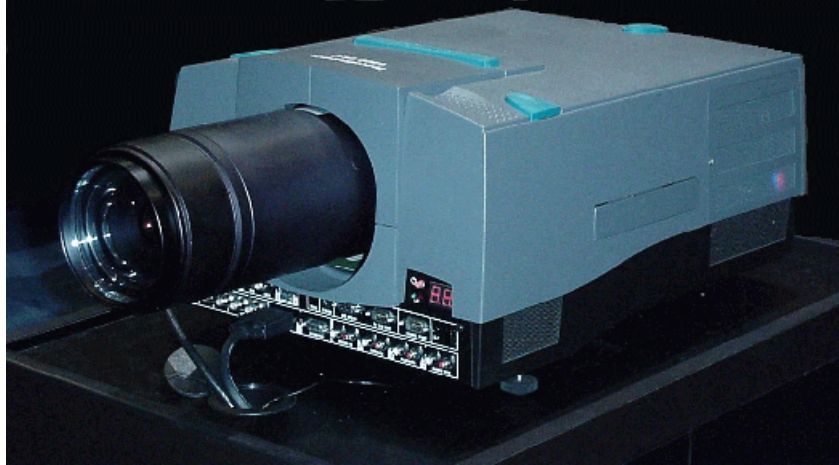
SUPPLEMENTARY EQUIPMENT

Supplementary equipment available in the cart includes: the auxiliary monitors, the projector, the color video printer, the mixers and the computer interface box.

Realtime Transcript Processing:

Realtime transcript processing is a tool for viewing and interacting with transcripts as they are being recorded. The court reporter connects the stenography equipment to a computer running a software package which can then be transmitted to a laptop.

Barco Projector



The projector is critical to the evidence presentation system. It projects the images provided by the various video sources to a large wall screen facing the jurors. The settings are preset for normal operations and do not require adjustment.

The projector requires a 30 second warmup period. After warmup, the projector places itself into standby mode. Select the PROJECTOR ON/OFF button on the control box to begin projecting. The courtroom deputy will turn on the projector prior to the start of the court proceedings.

When the projector is no longer needed, toggle the PROJECTOR ON/OFF button on the control box to place it in standby mode. The projector will begin a 1 minute cool down, ignoring any other commands until the cool down is completed. The time to complete the cool down is flashed on the front of the projector. When it becomes steady, the projector is ready to switch modes.

There is a remote control that can adjust the settings on the projector, but it is recommended to use the preset settings.

Auxiliary Monitors

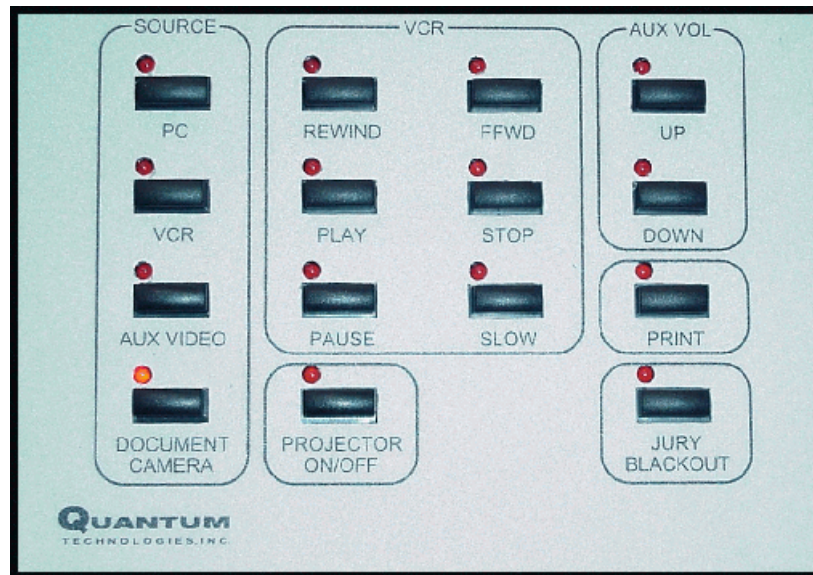


There are five, 14 inch flat panel monitors. There is one on each counsel table, one for the judge, one on the video cart, and one for the witness. The monitors display the same screen being projected on the wall screen by the projector. The monitors continue to display even if the jury blackout button is selected from a control box. Be careful to position the monitors at the attorney's table so that they are not visible to the jury.

The monitors are powered on by a ON/OFF switch in the lower right hand corner of the monitor.

The witness monitor has a touch screen allowing the witness to make annotations to anything that appears on the screen without leaving the witness stand.

Control Box



The control box selects and controls all of the equipment on the cart.

Source selection can be alternated between PC, VCR, AUX VIDEO, or the DOCUMENT CAMERA (ELMO).

It is recommended that the VCR be controlled using the control box. The VCR can also be controlled using the control panel located on the VCR. VCR controls are the same as found on a home VCR - REWIND, PLAY, PAUSE, STOP, FAST FORWARD. The VCR on the cart includes a SLOW button to view frame by frame slow motion.

The control box contains the ON/OFF button for the Projector. The projector requires an approximate 30 second warm up time and a 1 minute cool down.

The control box contains the Master audio control for all of the sound for the systems in the cart. There is a separate UP and DOWN button in the AUX VOL area to control the volume of the sound.

The PRINT button will print whatever is being displayed via the projector from any of the video sources, and any additional annotations. The size of the printout is 5"x3½".

The JURY BLACKOUT switch only turns off the projector and associated sound. Any tapes, VCRs or programs will continue to play. Stop the program at the first available opportunity. It will be necessary to rewind or backtrack to return to the position when the blackout switch was depressed.

ELMO: Document Camera



The document camera, or ELMO, is the main component of the system. There are two sub-components to the document camera, one is a sub camera and the second is the annotation pad. Unlike older overhead projectors, the ELMO uses a camera to provide the image to the projector. In order to project from any source the ELMO document camera must be powered on.

Virtually anything can be displayed using the ELMO including: small 3D objects, photographs, transparencies and x-rays. Control buttons to operate the ELMO are located on the front of the unit and grouped by function.

Lighting on the ELMO can be from either the upper or lower source. The buttons are labeled UPPER and BASE. Switch between light sources by pressing either button. To turn off the light, press or toggle the current light source button again.

The upper lighting source is the most commonly used. It is used for projecting opaque objects such as pictures or diagrams and small 3D objects. The lower lighting source is used to project transparent objects like x-rays. Additionally, when using the lower light, there is a button labeled POS/NEGA which switches between a positive and negative image. There is also a button labeled COLOR/B&W which toggles between color and a black and white projection.

Another great feature of the ELMO is the capability to zoom in and out on the image. Using the zoom grouping, press TELE to zoom in or WIDE to zoom out. Focus the lens by pressing the AUTO FOCUS button.

Annotation Pad And Sub Document Camera



SUB DOCUMENT CAMERA

The sub document camera on the ELMO can be detached to view the details of oddly shaped 3D objects. Use the upper light source to illuminate the object.

To switch the ELMO document source to the sub document camera, choose SUB from the touch panel on the ELMO. Choose MAIN to switch back when done.

ANNOTATION PAD

Annotation is fun! Annotation is used to emphasize the display on the screen. The annotation pen can overlay any video sources available on the cart with arrows, shapes, and lines of various widths and colors.

Annotation takes practice. For best results, train witnesses prior to trial on the usage of the pad and pen. Placing graph paper over the pad will assist with correlating pen location to the display screen.

There are several control buttons on the pad. The CLEAR button will clear the annotation pad. The CHALKBOARD option will blank the video and provide a “clean slate”. Press VIDEO to return to normal operation. The annotation pen has an ON/OFF source button. When it is ON, the shapes can be dropped onto the pad by clicking the buttons on the pen without touching the surface of the pad.

Future plans include relocating the witness monitor to the lectern adjacent to the pad to facilitate annotation. The witness monitor will be replaced with a touch screen monitor.

VCR



The VCR functions as a regular VCR with minor additional features. It is recommended that the VCR be controlled from the main control box.

The main control box allows control of the following functions:

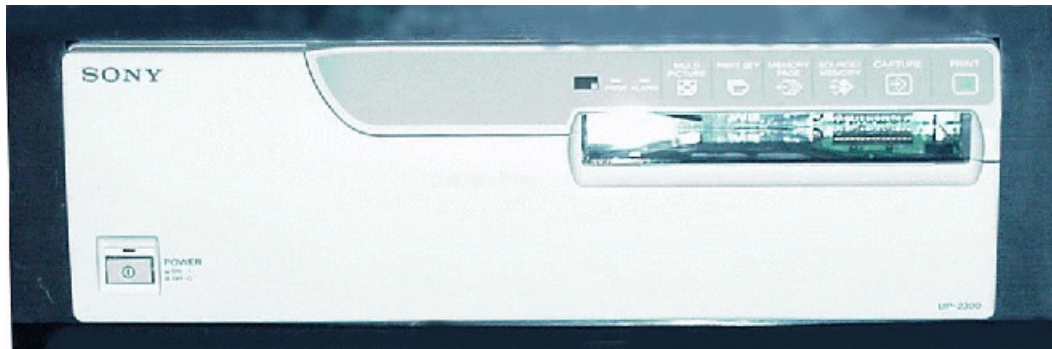
REWIND, PLAY, PAUSE, STOP, FAST FORWARD, and SLOW which allows slow motion frame by frame viewing.

The main control box also will control the volume of the tape.

There is an alternate pop-out control panel on the VCR. The eject button is on the lower left corner of the pop-out panel. There is also a remote control device in the drawer on the cart to control the VCR.

The ELMO must be powered on, but not necessarily illuminated, to project from the VCR.

Color Video Printer



The color video printer will print anything that is currently being shown by the projector. This includes any annotations from the annotation pad overlaying the video source, or from the annotation pad in chalkboard mode.

The output from the printer is similar to a Polaroid picture. The size of the printout is small, it is 3.5" by 5". There is an audible and visual warning from the printer when errors occur including an out of paper error.

The paper and ink cartridges will be replaced by court personnel when necessary.

The printer will be turned on by the courtroom deputy prior to the start of court proceedings. It takes approximately 30 seconds to print a copy.

Auxiliary Connections

LAPTOP
DVD
CD PLAYER
BETA FORMAT VCR
CASSETTE TAPES

There are several video and audio auxiliary connections available on the cart. These connections allow input from various sources including: laptops, a Beta format VCR, a DVD player, a CD player, or cassette tape player.

The signals are routed through the ELMO which must be powered on, but the lamps can be off.

Occasionally there are problems with the video image from a laptop not centering correctly. If this happens, there is a control panel on the visual presentation system cart which can center the signal. The court personnel can assist with this adjustment.

If a program on a laptop also requires the use of sound, ensure that the laptop has a headphone connection or sound will not be available.

Realtime Transcript Processing



The video presentation equipment installed in the court has the capability for realtime transcript processing. In realtime transcript processing the reporter's notes are immediately translated by way of computer software into a draft transcript which can be projected on a screen for spectator viewing and/or on laptop computers at the judge's bench and counsel tables. It can also be downloaded into the laptop computers or transmitted to a remote location. Because it is a draft, it will probably contain errors which must be corrected at a later time.

Realtime court reporting is not yet being used in the Eastern District of Louisiana. This is a future capability for this court.

It is the court's intention to have realtime reporting implemented at the earliest practical time as the judges and the lawyers anticipate that it will provide many benefits.

Recommendations for Successful Usage

GENERAL

Courtroom deputies will power on the equipment, change the printer's cartridges as needed and assist with connections. The equipment will be operated by the attorneys during the trial. Court personnel will secure the equipment at the end of each day.

Practice on the ACTUAL equipment prior to the trial. Arrange a practice time and date with the courtroom deputy.

Brief any witnesses on use of the annotation equipment.

During a Jury Blackout, stop the action on any video/slideshow, or audio source first, or it will continue past the point where the blackout occurred and you'll have to spend time locating the point when the blackout happened.

DOCUMENTS

For evidence documents, use clear copies, or scan the original using a high resolution.

There is no zoom capability available from auxiliary connections like a laptop. When displaying text from a software application, use a large font, for example 18 - 24 point, depending on the font, when possible.

Use color carefully. Dark colors on light colors project best.

LAPTOPS

A screen resolution of 800x600 is recommended. There is a maximum resolution limit of 1024x768.

Some laptop video cards have an alternate setting when attaching a second monitor like the VP cart. Be sure to check both settings, if applicable.

BENEFITS

Displaying evidence as it is being explained enhances the jury's comprehension of the testimony.

Security problems are alleviated in cases of drugs and weapons. They can be displayed via the ELMO instead of being passed around.

Annotations can be added over documents, printed, and possibly entered as evidence in the case.

BE PREPARED

The electronic courtroom technology can greatly assist presentation of evidence. Displaying evidence as it is being explained enhances the jury's comprehension of the testimony. It is conveniently located in a central cart. However, be prepared if there are technology problems. Remember, Murphy was an optimist!